

City of Alexandria, Virginia

MEMORANDUM

15
1-28-03

DATE: JANUARY 17, 2003

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: PHILIP SUNDERLAND, CITY MANAGER *ps*

SUBJECT: ANNUAL REPORT OF THE WASTE-TO-ENERGY TRUST FUND

ISSUE: City Council receipt of the annual report regarding the Alexandria/Arlington Waste-to-Energy Trust Fund.

RECOMMENDATION: That City Council receive this report.

DISCUSSION: In the early 1980s, in response to the need for long term management of their municipal solid waste streams, the City of Alexandria and Arlington County forged a partnership to create a cost effective and environmentally sensitive alternative method of the disposal of solid waste that minimized the two jurisdictions reliance on landfilling by constructing a waste-to-energy facility (WTE). This resulted in the financing and the construction of a 975 ton per day WTE facility on Eisenhower Avenue in Alexandria. This facility serves both jurisdictions and produces sufficient electricity daily to power some 23,000 homes in the Dominion Virginia Power network. In addition, the two jurisdictions created and then expanded the recovery of materials from the waste stream by creating recycling programs.

The attached report, *Partners for Progress - Environmental Stewardship in Waste Management Programs*, describes the solid waste management programs of both jurisdictions including recycling programs, as well as the operations and finances of the WTE. This report has been prepared not only as a report to the governing bodies of the two jurisdictions, but also to inform the public about solid waste management in both Alexandria and Arlington.

Highlights of this report include:

- The WTE facility continues to be fully utilized. It processed 340,485 tons of waste in 2001 and a record 344,747 tons in 2002.
- The WTE's new air pollution control equipment and continuous emissions monitoring system, put in full service at the end of 2000, continued to perform in 2001 and 2002 as designed, well within the emission standards set by the federal Clean Air Act.

- Neighborhood improvements were completed in 2002 with the installation of new fencing, signage and landscaping in front of the WTE, as well as the adjacent City facilities. These improvements were completed in keeping with the Eisenhower Partnership Landscape Guidelines.
- Electricity rates at which the plant's power was sold increased in 2001 to about \$23 per ton of waste processed. These are the highest rates earned by the facility since 1985, and reflect the increased market price of electricity. Electricity sales rates in 2002 also were \$23 per ton.
- Due to difficulty in selling its non-energy operations (remaining from the days when it was the multi-national service conglomerate operating under the name "Ogden Corporation"), Covanta Energy Inc, the operator of the Alexandria/Arlington WTE, in March 2002 filed for reorganization under federal Chapter 11 bankruptcy law. The City and Arlington hired specialized legal counsel to represent the two jurisdictions in this process and to protect our interests.
- Although operating under Chapter 11, the WTE facility experienced low plant employee turnover, the successful completion of all planned capital maintenance, and, as evidenced by monthly facility and records audits by an independent engineering firm hired by the jurisdictions, was operated in a safe, efficient and effective manner.
- Tipping fee costs have stabilized at \$61 per ton and are expected to remain flat or drop for FY 2004.
- The higher electricity revenues earned by the WTE, the full utilization of the facility, and stable operating costs during FY 2002, all combined to result in expenditures made from the Alexandria/Arlington WTE Trust Fund to support plant operations (\$3.6 million) being only slightly higher than revenues earned by the WTE Trust Fund (\$3.3 million). This then resulted in an ending fund balance in the Trust Fund of some \$11.2 million in FY 2002, just \$0.3 million less than the prior year. This is a substantial improvement from the \$3.0 million drawdown that the Trust Fund experienced in FY 1999.
- City of Alexandria recycling programs continued to expand with the addition of a new recycling drop off center at 4251 Eisenhower Avenue, the further emphasis on electronics recycling (which gained EPA's Wastewise award for Best Electronics Recycling Program), as well as the initiation of a new plastic bottle recycling program at special events and festivals.

The challenges for FY 2003 and FY 2004 include:

- Increased capacity, new transfer stations and resultant competition in the Washington D.C. area for the disposal of municipal solid waste may result in the market rate dropping

for the disposal of municipal solid waste, thereby increasing the need for the WTE Trust Fund to subsidize the operations of the WTE at a far greater level.

- Continued close monitoring of the WTE and Covanta Energy will be needed to ensure that the WTE continues its successful operations. Covanta Energy has indicated that it believes that it will successfully emerge from the Chapter 11 process in 2003 with waste-to-energy as its core ongoing business. Covanta operates and/or owns several dozen facilities nationwide and is soon to open a facility in Europe.
- Monitoring federal and state legislation, and the activities of the private non-profit sector's Green-e certification process will be needed to ensure that the electricity produced from waste-to-energy facilities is considered "green energy" (i.e., produced in an environmentally appropriate manner). Currently, Virginia law recognizes WTE energy as green energy, and the federal energy bill which came close to passing Congress in 2002, also defined WTE energy as green energy. Energy that is considered green sells for a premium, and may benefit in the future from the sale of energy credits. Hence, this is an important issue to Alexandria and Arlington and its WTE finances. Some environmental groups do not consider WTE produced energy as green energy and, therefore, there is an ongoing debate in the defining and certification of green energy. The outcome of the debate will influence the future income stream of WTE facilities.
- Formulation of a Solid Waste Management Plan, as required of all Virginia jurisdictions, providing solid waste related services. This plan requirement is from the Virginia Department of Environmental Quality.
- Continued review of opportunities for expanding the City's recycling programs.

ATTACHMENT:

Partners for Progress - Environmental Stewardship in Waste Management Programs

STAFF:

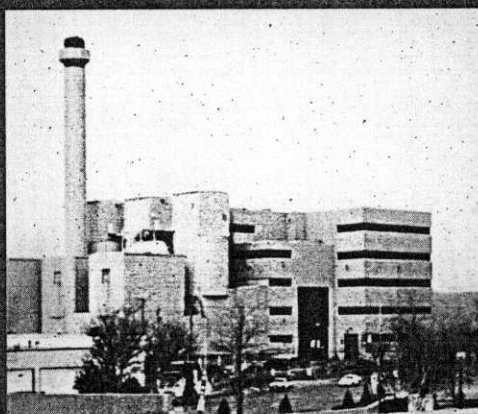
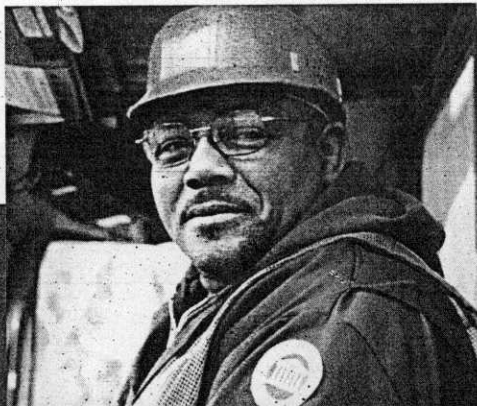
Mark Jinks, Assistant City Manager

Richard Baier, Director, Transportation and Environmental Services

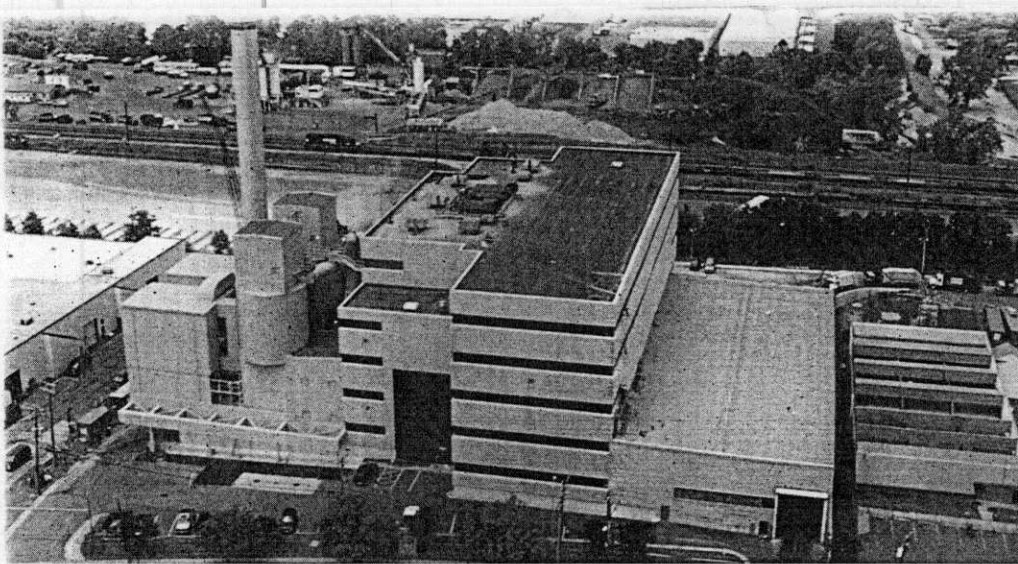
Partners for Progress

Environmental stewardship in waste management programs

15
1-28-03



COVANTA
ENERGY



The Alexandria/Arlington
Waste-to-Energy Facility

Introduction

In 1983, the City of Alexandria and Arlington County ("the Jurisdictions") forged a partnership for managing municipal solid waste¹ and created a cost-effective system that minimizes the reliance on landfilling and emphasizes the recovery of energy and materials.

Working through the City of Alexandria Sanitation Authority and the Arlington County Solid Waste Authority and their contractor, Covanta Alexandria/Arlington, Inc. ("Covanta"), the Jurisdictions financed and constructed the Alexandria/Arlington Waste-to-Energy Facility (the "Facility"). Since 1988, this 975 tons-per-day plant, located on Eisenhower Avenue in the City of Alexandria, has been reliably processing municipal solid waste from the Jurisdictions and converting it into electricity. The Facility is the centerpiece of the Jurisdictions' solid waste management system of waste reduction, collection, recycling, processing and disposal.

The Jurisdictions are parties to a Waste Disposal Trust Fund Agreement, which established a Waste Disposal Trust Fund that pays for certain solid waste

management system costs of the Facility, including Facility improvements.

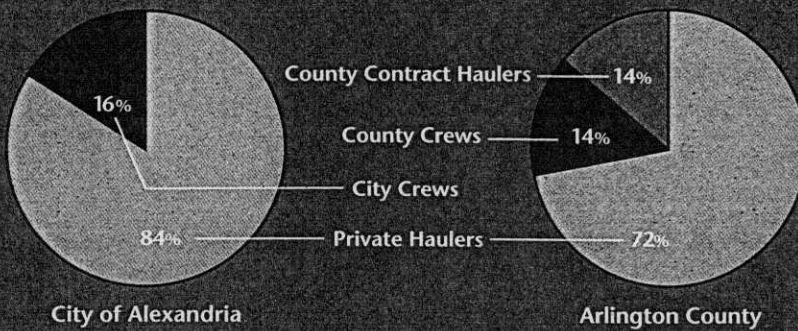
The Jurisdictions are obligated under their contract with Covanta to deliver at least 225,000 tons per year of acceptable waste to the Facility or pay a shortfall fee. Overall, the Facility has capacity to process 356,000 tons annually. While confronting many challenges, the Jurisdictions have met their obligation, and have continued to work closely with each other and Covanta to maintain a stable Facility operation, respond to dramatic changes in the waste management industry, and protect and improve the environment.

In 1999 and 2000, the Jurisdictions and Covanta made Facility improvements in response to the 1990 Amendments to the federal Clean Air Act and their commitment to improving air quality in the region. These substantial Facility improvements, funded through a \$46.1 million revenue bond issue, include one of the most modern, advanced emissions control systems of any existing waste-to-energy facility. Additional landscaping upgrades were added in 2001 to further enhance

Facility aesthetics and benefit its neighbors. Now, the Jurisdictions face additional challenges and opportunities in maintaining a reliable, cost-effective, environmentally sound municipal waste management system. Needs associated with expanding waste reduction and recycling; assuring the waste supply to the Facility; responding to the deregulation of the electric power industry; and preserving the economic stability of the Trust Fund must be met. The Jurisdictions have been solid in their commitment to progress and environmental stewardship, and diligent in their planning for the future. Through their continued vigilance and partnership, they plan to meet the challenges.

This Report provides an overview of the Jurisdictions' solid waste management system, describes the improvements to the Facility, identifies new programs and services implemented and planned to advance waste reduction and recycling, and outlines the initiatives under consideration by the Jurisdictions to meet future needs in this dynamic, highly regulated environment.

¹ Municipal solid waste generally includes non-hazardous garbage, trash, and other waste generated in households, commercial and business establishments, institutions, and light industries.



Solid Waste Collection
Both municipal and private haulers collect solid waste in the Jurisdictions

Solid Waste Management in the Jurisdictions

Solid Waste Generation

The Jurisdictions have experienced substantial population growth in the last 20 years. Continued growth is projected, with population rising from an aggregate level of approximately 319,000 in 2000 to 336,000 by 2010.

This growth, coupled with a location as a major employment center for the federal government, trade associations, and many national corporations, contributes to a sizeable municipal solid waste stream and an increased demand for collection and disposal services. Solid waste generation (net of recycling) in the Jurisdictions is forecast to increase from approximately 320,000 tons in 2000 to over 338,000 tons in 2010.

Solid Waste Collection

Both municipal and private haulers collect solid waste in the Jurisdictions, as illustrated in the charts above. In Alexandria, residential properties of four units or less are required to utilize the City's solid waste collection service. This includes approximately 18,600 service locations and about 460 small commercial establishments that were served prior to 1983 when the current requirements were set by City Council. Other commercial and multi-family property owners contract with private haulers.



Alexandria delivers recycling bins to residents.

In Arlington County, one-family and two-family dwellings are required to participate in the County's waste collection system. Town house developments may participate under certain conditions. Other multi-family and commercial businesses must contract with private contractors. The County provides collection service to approximately 32,000 customers through a combination of County and County-contracted collection crews.

Much of the Jurisdictions' population resides in high-rise apartments and town houses requiring the specialized collection service and equipment of private haulers. In addition, waste generated at businesses, government offices, and institutions is generally collected by private collectors.

Waste Reduction and Recycling

The City of Alexandria and Arlington County operate comprehensive recycling programs that divert a significant portion of the Jurisdictions' waste from disposal. These programs foster the goal of resource conservation.

The City's recycling program includes weekly curbside collection by City crews of newspaper and commingled recyclables (glass, cans, and plastic containers) and the maintenance of four drop-off centers for these same materials. The City also has 15 newspaper recycling stops as well as recycling of its own office paper. Leaves are collected at the curb for recycling in the fall.

The County's recycling system includes the curbside collection of commingled materials, scrap metal, corrugated cardboard and mixed paper, as well as brush and leaves for mulching. In addition, the County maintains two drop-off centers for recyclables and provides County facility collection of office paper, corrugated containers, and aluminum. The County also recycles used concrete and asphalt.

The costs of the Jurisdictions' recycling programs are funded through user charges to residences, revenue from sale of recyclables, and other sources.



Old Town Alexandria

Solid Waste Management in the Jurisdictions (continued)

New Initiatives and Expanded Programs in Waste Reduction, Reuse, and Recycling

In 2002, the Jurisdictions implemented several new programs and services and expanded others to increase waste reduction and recycling and elevate their outreach to residents and businesses. Further initiatives are planned for 2003. A brief overview of these programs and initiatives in each Jurisdiction is provided below.

Arlington County

- **Curbside Recycling Program**

The County expanded its curbside recycling program on July 1, 2002, and is now offering corrugated cardboard recycling at the curb. Adding corrugated cardboard to the curbside program should divert up to 1,200 tons of cardboard from the waste stream each year.

- **Electronics Recycling**

The County sponsored two recycling collection events for used computers and electronic equipment during Fiscal Year 2002. The events diverted more than 20,080 pounds of these materials from the waste stream.

- **Earth Day Event**

The County expanded the Spring Environmental Extravaganza in 2002, showcasing various environmental

non-profits and initiatives occurring throughout the County. A tree planting ceremony, alternative energy exhibits, hybrid vehicles, and the normal electronic and household hazardous waste collections, were just a few of the headlines at this year's event.

- **Brochures and Publications**

The County continued to update existing brochures, and added additional information about the expanded curbside recycling program to the Guide to Solid Waste Services and Waste Reduction. A new waste reduction brochure was also created in Spanish, and distributed at various County events.

- **Outreach/Education**

Arlington County conducts a number of outreach and educational activities throughout the year. Among the activities were displays at the Arlington County Fair, Clarendon Day, Environmental Extravaganza, and multi-cultural festivals. Staff also celebrated America Recycles Day with various activities and presentations. Recycling presentations were also delivered throughout the year to school groups, community organizations, and County employees.

- **America Recycles Day**

The County celebrated America Recycles Day by recognizing County

employees who reduce, reuse, and recycle, and continued its annual "recycle right" awards program to recognize residents that properly prepare their curbside recyclable materials.

- **Business and Multi-Family Recycling**

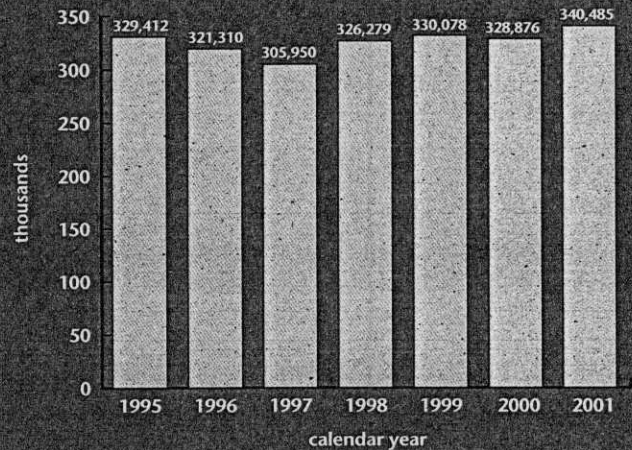
The County continued its technical support to commercial and multi-family properties, processing approximately 2,000 recycling plans and conducting site visits to bring properties into compliance with County recycling ordinances. The County developed customized recycling posters for use by multi-family and business entities to promote recycling. The County also processed more than 60 hauler reports to assist in the determination of recycling quantities from the multi-family and commercial sectors.

- **Expanded Yard Waste Processing**

The County received a 2002 National Association of Counties Achievement Award for its leaf mulch and wood waste processing program. Key to receiving the award is the inter-jurisdictional nature of the program, where the County provides leaf-processing services to the City in support of its annual leaf collection program.

Solid Waste Deliveries to Waste-to-Energy Facility

Waste deliveries to the Facility averaged approximately 326,000 tons per year during this period, but were lower in some recent years due to competing, lower-priced disposal facilities in the region.



City of Alexandria

• Electronics Recycling

The City launched an electronics recycling program that collected more than five tons of electronics in Fiscal Year 2002. The program accepts computers, printers, televisions, cellular phones, VCRs, radios, and other household electronics at the household hazardous waste collection site.

• Household Hazardous Waste

The City implemented a weekly drop-off collection program for household hazardous waste, every Monday from 10 am to 6 pm at 3600 Wheeler Avenue. During Fiscal Year 2002, 315 drums of hazardous materials were collected for proper disposal.

• Special Collection Events

Two Saturday events were held to collect electronics and bicycles. Over 12 tons of electronics were collected through these events for recycling. Residents brought more than 155 used bicycles to be donated to Pedals for Progress, a charity which ships bikes to needy individuals overseas to provide transportation and foster economic development.

• New Recycling Drop-Off Centers

The City enhanced its recycling drop-off program by adding a fourth drop-off center at 4251 Eisenhower Avenue and making improvements to the existing centers. Changes include

larger containers for newspapers and cardboard, the addition of flowerbeds and landscaping, and upgraded signage and fencing.

• School Education Programs

The City's Office of Recycling developed a special recycling educational program designed for elementary students from the third through fifth grades. It includes a presentation that can range from 30 to 60 minutes, a video explaining recycling, and a unique "environmental jeopardy game" to challenge students about their knowledge of recycling. The Office of Recycling presented this program to over 1,500 schoolchildren as part of a promotion for America Recycles Day in November 2001.

• Expanded Outreach to Neighborhood and Community Groups

The City expanded its outreach through increased promotion of curbside service and drop-off centers to City neighborhood associations and various community groups. Special mailings were completed, and about twelve presentations were made to neighborhood and community groups as a direct result of the outreach effort. Approximately 900 children were reached via presentations made during summer education programs at William Ramsay, Nannie J. Lee, and Cora Kelly recreation centers.

• Expanded Recycling in City Departments

In response to a review of recycling programs in all City departments, the Office of Recycling was given a budget allocation to purchase additional recycling bins to expand recycling collection to more City facilities.

• America Recycles Day

The City was honored by the EPA with a national America Recycles Day award for the best city program in 2001 and received \$3,000 to enhance recycling programs.

• Special Events Grant

The City received a grant to collect plastic bottles for recycling at special events and festivals during the summer of 2002. This program collected over 1,500 pounds of plastic from eight events.

Waste-to-Energy Facility

The majority of municipal solid waste from the Jurisdictions, after waste reduction and recycling, is delivered to the Waste-to-Energy Facility. Employing "mass burn" technology to combust municipal solid waste at high temperatures and produce steam, which is then used to generate electricity for sale to Dominion Virginia Power, this Facility has reliably processed over 4.2 million tons of solid waste since 1988. The electricity produced by the Facility is

Waste-to-Energy Process



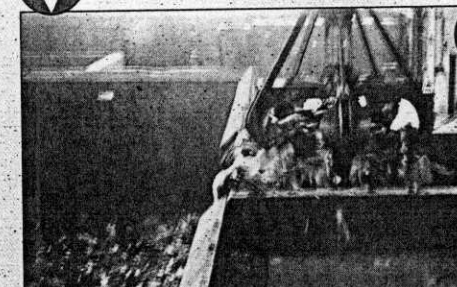
Scale-House

The first stop for trucks after entering the Facility is the scale-house. Haulers are charged a fee based on the weight of their load and the type of waste they are transporting.



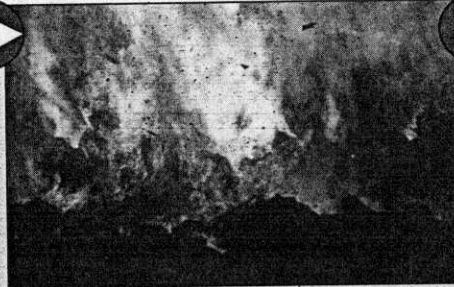
Tipping Hall

Trucks dump their loads. Operators screen incoming material to keep inappropriate wastes out of the combustion process.



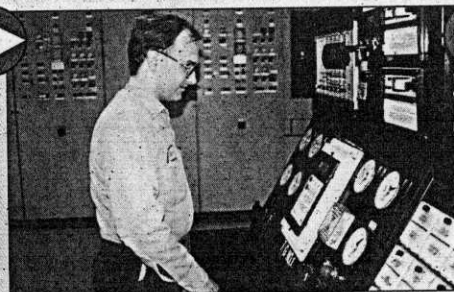
Waste is moved to combustion

Overhead cranes move the waste from the pit to the charging hoppers, nearly three tons at a time, for introduction into the combustion chambers.



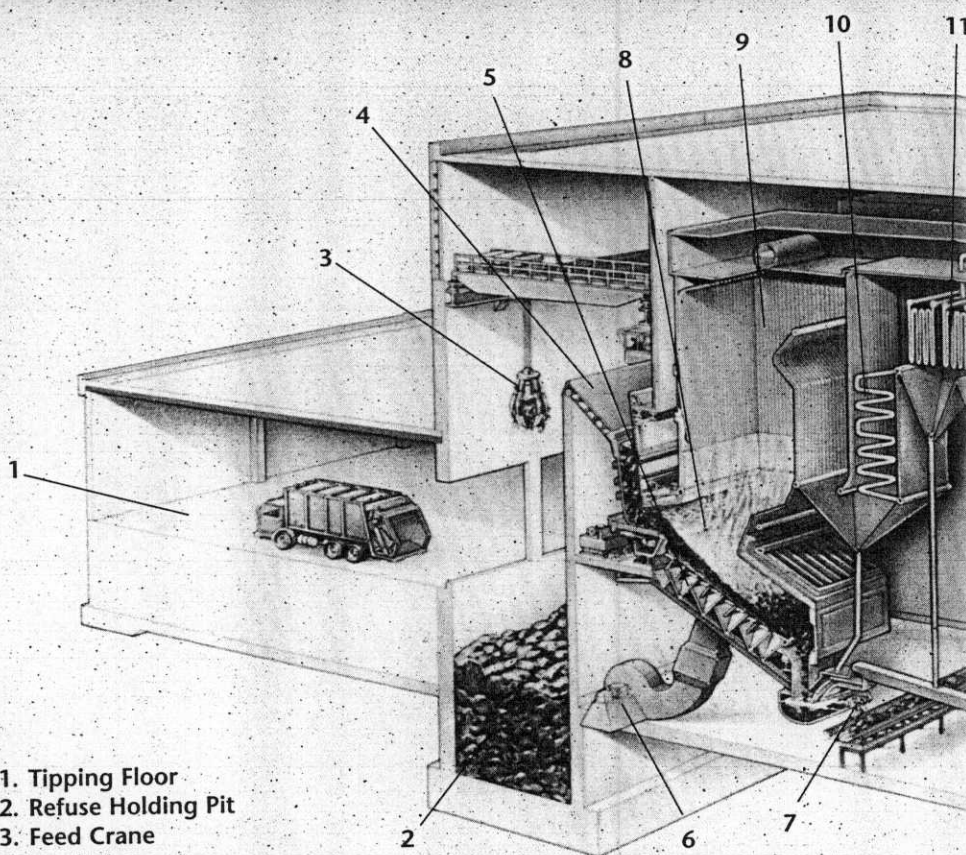
Combustion Chamber

Waste is burned on the patented Martin Grates, where finger-like devices are constantly exposing the unburned waste to fire, ensuring the most efficient combustion.



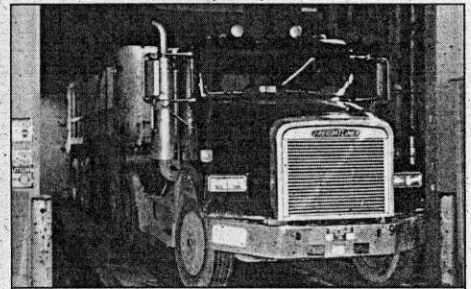
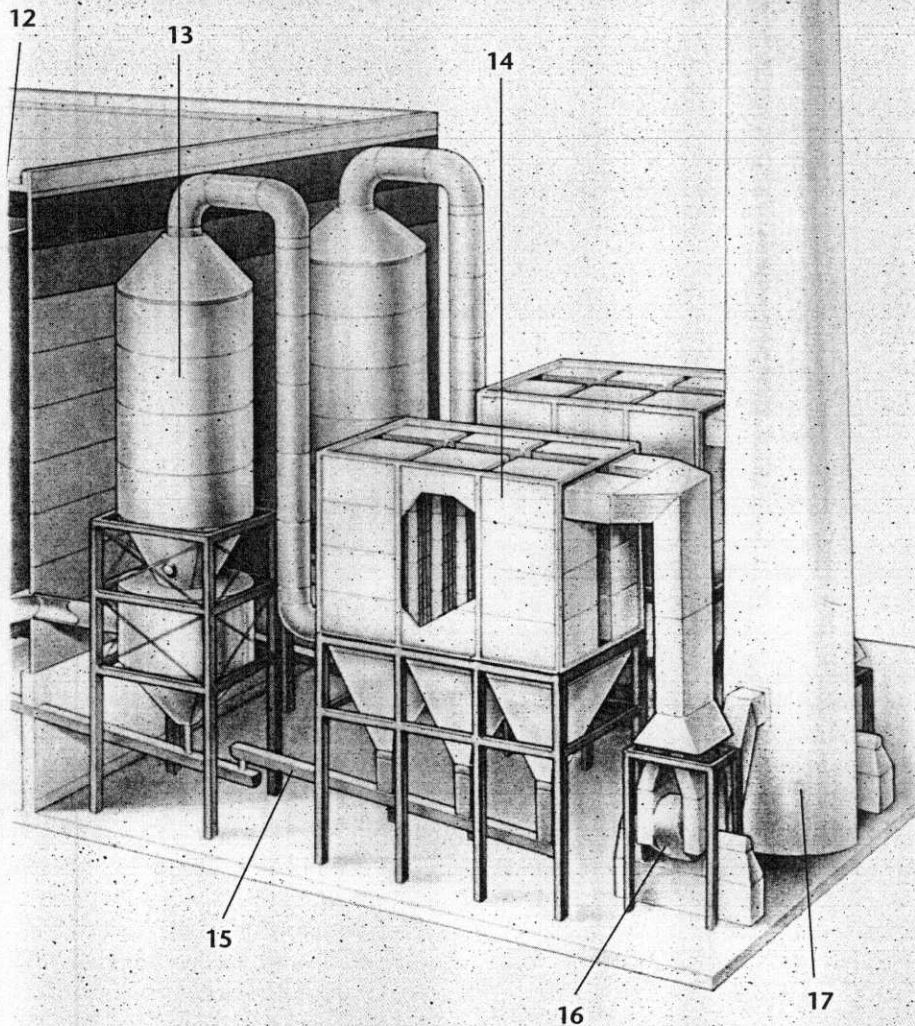
Control Room

Highly trained personnel monitor operating conditions in the entire facility, including the state-of-the-art continuous emissions monitoring system.



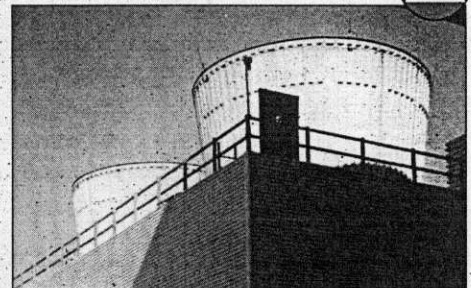
1. Tipping Floor
2. Refuse Holding Pit
3. Feed Crane
4. Feed Chute
5. Martin Stoker Grate
6. Combustion Air Fan
7. Martin Residue Discharger and Handling System
8. Combustion Chamber
9. Radiant Zone (furnace)
10. Convection Zone
11. Superheater

12. Economizer
13. Dry Gas Scrubber
14. Baghouse
15. Fly Ash Handling System
16. Induced Draft Fan
17. Stack



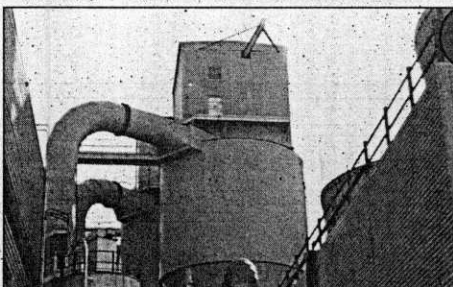
Ash Management

Ash is collected from the combustion chamber, scrubbers and baghouse to be disposed of at an approved landfill.



Steam Condensing & Water Reuse

Large fans, used in conjunction with a water spray system, cool and condense the steam produced for electricity generation. The condensed steam, reconverted to water, is then pumped to the boilers to generate additional steam, completing the cycle.



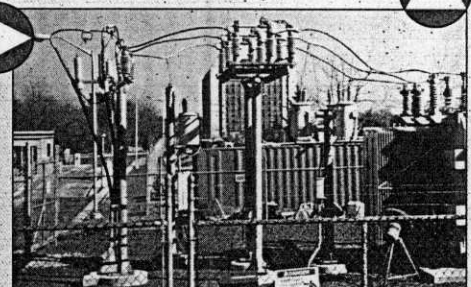
Air Pollution Control

The Facility's new emissions control system can process emissions to exceed 1990 federal Clean Air Act requirements. The first of four stages is where anhydrous ammonia injection turns smog-causing nitrogen oxides into nitrogen and water.



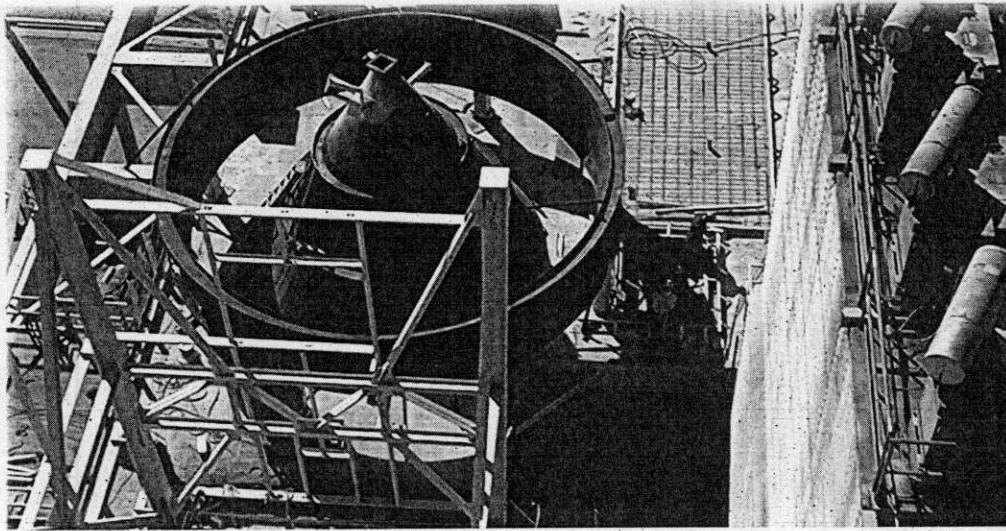
Scrubbers & Fabric Filter Baghouse

Hot gases, after passing through the boiler, are washed with lime slurry to stabilize acid gases. Next, activated carbon scrubs out mercury, dioxin, furan and other pollutants. In the final stage, minute particles, not visible to the human eye, are filtered out by some two thousand cylindrical bags (as seen here).



Electricity Generation

Electricity, enough to power some 23,000 homes, is distributed to the power grid via Dominion Virginia Power's transformer.



Facility modifications under construction.

equivalent to the power to operate approximately 23,000 homes. The chart on page 3 shows waste deliveries to the Facility in calendar years 1995–2001.

Waste deliveries to the Facility averaged approximately 326,000 tons per year during this period, but were lower in some recent years due to competing, lower-priced disposal facilities in the region. Waste flow to these competing outlets increased after a 1994 U.S. Supreme Court decision limited the ability of local and state governments to control the flow of waste to designated facilities through local ordinances. This loss of waste (and revenue) has been one of the challenges faced by the Jurisdictions and is discussed later.

Improvements to the Waste-to-Energy Facility

In response to the federal Clean Air Act Amendments of 1990 and the Jurisdictions' desire to make improvements to the Facility that would ensure the highest level of environmental protection, reduce impacts and provide benefits to the neighborhood, the Jurisdictions and Covanta undertook a Facility retrofit program, financed by a \$46.1 million revenue bond issue. These improvements are described below.

Advanced Emissions Control System

Completed and successfully passing performance testing in 2000, the new emissions control system is one of the most modern, advanced emission control systems of any existing waste-to-energy facility in the United States. Included in this new system are acid gas scrubbers and fabric filters, a carbon injection system, and continuous emissions monitoring equipment.

Other Facility Changes

During this recent retrofit, the Facility has also been equipped with a new computerized combustion control system and new scales and scale-house. Several general building repairs also have been completed.

Neighborhood Improvements

As part of the Facility modifications, several Facility improvements that benefit the neighborhood have been installed. Improvements completed include new windows in the Facility; new stack siding; a new entrance; Facility painting; on-site access road to reduce traffic congestion; fencing; noise shielding; and landscaping improvements.

Covanta, as part of its outreach to the community, has also initiated a series of school outreach programs.

The efforts by the Jurisdictions and Covanta, to reduce Facility impacts on the neighborhood and maintain the Facility as a good neighbor, have been recognized by local residents and business owners. Among them, Sharon Hodges, Executive Director of the Eisenhower Partnership, noted:

"...The biggest impact to the area has been the change in truck access to the Facility. This has made a tremendous difference in traffic flow, extremely helping to reduce the congestion in traffic heading toward Van Dorn Street. We are looking forward to the changes in the landscaping, and the new fencing and signage. This should be a huge improvement and help the Facility better fit into the neighborhood."

Federal Clean Air Act Amendments and a 1994 Supreme Court decision have created significant challenges for the Jurisdictions.



Responding to the Challenges

The Jurisdictions have encountered many challenges in maintaining a reliable, stable solid waste management system, particularly in recent years and throughout a period of dramatic change in the regional and national waste industry. Several developments have impacted the costs of operating and maintaining the Jurisdictions' system and its revenues, and the Jurisdictions have successfully addressed these needs through a sound management strategy. Now, the Jurisdictions are diligently planning for the future and evaluating various options as they formulate additional changes necessary to stabilize both waste flow and revenue for the Facility. This section describes the most significant challenges they have faced and the anticipated future needs to ensure the economic stability of the solid waste management system.

Meeting the Clean Air Act Amendments of 1990

The retrofit modifications that have enabled the Facility to meet 1990 Amendments to the federal Clean Air Act were financed through a \$46.1 million revenue bond issue. The advanced emissions control system began operating in 2000, and the remainder of the improvements were completed in 2001. Operating costs

have risen with this additional debt and maintenance of this new emissions control system and sophisticated emissions monitoring equipment. These costs, as fully incurred in 2001, resulted in the need to increase revenues to the Facility.

Ensuring the Waste Supply

The Jurisdictions are obligated to deliver at least 225,000 tons per year of acceptable waste to the Facility or pay a shortfall fee pursuant to their agreement with Covanta. In recent years, due to factors outside the Jurisdictions' control, their ability to ensure this waste supply has been impaired. These factors are discussed below.

The Carbone Decision and Competing Mega-Landfills

During recent decades, many communities enacted ordinances that controlled the flow of solid waste by designating the facility or facilities to which solid waste generated within their boundaries must be taken for processing or disposal. The purpose of this "flow control" legislation was to ensure that sufficient amounts of waste were received to cover the costs of operating the facilities and retire the debt issued to finance them. Flow control is considered to be an essential tool in

planning for the long-term management of solid waste because it guarantees the economic integrity of the system once it is operating. Use of flow control has been particularly important for waste-to-energy facilities, since they depend on the waste supply not only for service fee revenues but also for the conversion of waste to electricity, which is sold to help offset the system costs. In a 1994 landmark decision, *Carbone vs. Town of Clarkstown, N.Y.*, the U.S. Supreme Court ruled that legislated flow control, where it interferes with interstate commerce, is a violation of federal law. Following this decision, local flow control ordinances became invalid. As a result, waste flows to competing facilities, particularly those in adjoining or nearby states, sharply increased. In many cases, this development seriously jeopardized the economic stability of the facilities from which the waste was diverted.

This situation has been especially troublesome to local governments in the Washington, D.C. metropolitan region. Waste has been diverted by private haulers from established facilities to private transfer stations in the District, Maryland and Northern Virginia from which it is transported to large, private landfills ("mega-landfills") in Virginia



Waste supply contracts with private haulers have helped to stabilize Facility revenues.

Responding to the Challenges (continued)

and Pennsylvania. Many of these landfills were built around the time of the Carbone decision, many years after the Jurisdictions had planned, financed, and constructed the Facility.

In fact, at the time this Facility was being planned, landfill capacity in the region and throughout the nation was rapidly decreasing, and a disposal capacity crisis was projected.

Today, a significant quantity of waste generated in Northern Virginia, Washington, D.C., and Maryland flows to these mega-landfills. There is excess capacity in these sites, and the owners, primarily the large waste service companies, have deeply discounted disposal pricing because of the over capacity and the desire to divert waste from competing disposal and processing facilities like the Facility. In the recent past, the disposal fee at some of these landfills has been less than half the cost-based disposal fee charged at the Facility. As a result, private collectors have taken some waste from the Jurisdictions to these landfills, reducing the revenues needed to support the Jurisdictions' solid waste management system.

Responding to the Carbone Decision — Contracting for Waste Supply

In the wake of the Carbone decision and the pressures presented by the private transfer stations and mega-landfills in the region, Covanta, working with the Jurisdictions, successfully negotiated waste supply contracts with two of the major waste collectors in the City of Alexandria and Arlington County. The contracts ensure that waste collected in the Jurisdictions by these two large haulers will continue to be delivered to the Facility over the next several years, contributing to its economic stability. The Facility also receives a small amount of supplemental non-hazardous waste that generally originates outside of the Jurisdictions, from generators who require secure and complete destruction of the waste. Those generators pay a significant premium to have their waste disposed of at the Facility. Additionally, week-to-week, the Facility may have a small amount of excess capacity. In such instances, Covanta has the flexibility to enter into "spot" delivery arrangements with regional haulers outside of the Jurisdictions to deliver additional waste. In addition to the tipping fee revenue, the processing of this waste brings with it revenue from the sale

of electricity produced. Combined, these additional revenues help to reduce the Jurisdictions' financial obligations to Covanta.

Efforts to Restore Flow Control

The Jurisdictions have been working with their congressional delegation, both in the House and Senate, to support proposed national legislation that would restore flow control powers, and they renewed their efforts with the new Congress. However, there is no certainty that national legislation will be enacted, as there have been several bills introduced over the years without success. Therefore, the Jurisdictions recognize that additional contracts for waste supply and/or other funding approaches are the primary means to address the longer-term revenue needs of the Facility.

Electricity Sales from the Facility and the Uncertainties of Deregulation

Electricity from the Facility is sold to Dominion Virginia Power under a long-term agreement. The agreement provides for an "energy" payment and a "capacity" payment as components of the purchase price. The capacity payment results from Dominion Virginia Power being able to depend on the

Electricity Sales Revenues to the Facility

(\$/ton of Waste Processed)

year	
1993	27.15
1994	25.09
1995	26.04
1996	16.59
1997	15.29
1998	14.95
1999	16.86
2000	17.65
2001	22.93

Revenues from the sale of electricity have decreased, dropping from an average of approximately \$27 per ton of waste processed in 1993 to less than \$23 per ton of waste processed in 2001, as the market value of electricity declined.

electricity from the Facility during periods of peak demand when power supply is most critical. The energy payment is based on the costs Dominion Virginia Power avoids by purchasing electricity from the Facility. The avoided costs are revised from time-to-time under a tariff approved by the State Corporation Commission.

In planning for the Facility, it was projected that future electricity prices would increase with rising energy costs. The Facility's electricity purchase agreement with Dominion Virginia Power contains a guaranteed "minimum" purchase price for energy, but only through December 1995. Since then, however, the price paid by Dominion Virginia Power has been below this "minimum" price. As a result, revenues from the sale of electricity have decreased, dropping from an average of approximately \$27 per ton of waste processed in 1993 to less than \$23 per ton of waste processed in 2001, as shown above.

Electricity Sales in a Deregulated Market

Electric utility customers traditionally have been served by regulated "monopolies." Now, there is a national movement from this rate-regulated environment to a deregulated, competitive

retail and wholesale generation marketplace. Many states are implementing legislation designed to increase competition and provide for consumer choice of an electricity supplier.

A major policy resolution was passed at the U.S. Conference of Mayors annual meeting in June 2000, urging federal and state law makers to ensure that any utility restructuring legislation like deregulation includes provisions to promote renewable energy in all forms, including waste-to-energy.

The Commonwealth of Virginia has legislated the restructuring of the utilities for the phasing in of a deregulated market for the generation and transmission of electricity. The Virginia Electric Utility Restructuring Act (SB 1269) was passed in March of 1999, which provided for consumer choice pilot programs in selected areas, including Fairfax County, since January 2001. According to the Act, state-wide deregulation was to begin implementation in January 2002 and be completed by January 2004. The State Corporation Commission (SCC) is considering accelerating this by one year to attract more energy suppliers that are requesting access to the entire State's market to make participation more feasible.

The Act provides for the recovery of stranded costs through capped rates for customers staying with the incumbent utility and through a "wires charge" for those who switch to competitive suppliers.

Deregulation of the electric power industry in Virginia could create opportunities for the Jurisdictions. The Facility, as a power generator, could have an expanded geographic base and possibly export power. Waste-to-energy also could be given special treatment as a renewable fuel or "green power" source in certain markets.

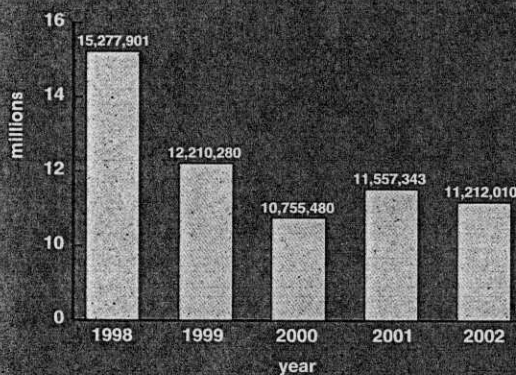
However, there are many uncertainties and issues regarding developments in a future deregulated marketplace for the purchase of electricity at the retail level, including the means and terms by which the Facility could sell electricity to retail customers.

Covanta and the Jurisdictions are continuing to evaluate this changing marketplace and the potential impacts on the Facility.

Covanta Reorganization

On April 1, 2001, Covanta, Inc., the parent company of Covanta Energy of Alexandria/Arlington, Inc., filed for reorganization under Chapter 11 of the

Trust Fund Balances



Alexandria/Arlington Waste Disposal Trust Fund Statement of Revenue, Expenditures and Changes in Fund Balance (for the year ended June 30)

	2000	2001	2002
Total Revenue	\$2,527,857	\$4,175,207	\$3,227,172
Total Expenditures	3,982,657	3,373,344	3,572,505
Revenue over/under Expenditures	(1,454,800)	801,863	(345,333)
Fund Balance, beginning of year	12,210,280	10,755,480	11,557,343
Fund Balance, end of year	\$10,755,480	\$11,557,343	\$11,212,010

Responding to the Challenges (continued)

United States Code ("the Bankruptcy code"). The filing was precipitated by significant corporate debt payments that were due as well as the inability of Covanta, Inc. to divest itself of its aviation and entertainment businesses. The events of September 11 severely affected the aviation industry and delayed Covanta, Inc.'s sale of their aviation business. It also impacted their ability to sell their interest in other non-core businesses.

Covanta, Inc. management is in the process of restructuring the company to return to its core energy business and has represented that the energy business of the company is solid and profitable. This energy business includes 26 waste-to-energy plants, water operations (including water desalinization, drinking water treatment, and wastewater treatment) and coal, gas, and hydro-powered electric generation plants.

The Trustees have retained special counsel to monitor the proceedings of the bankruptcy court to protect the Jurisdictions' interests. The Facility continues to operate at a high level of performance, with maintenance conducted in a timely manner and debt service payments made each month.

The Waste Disposal Trust Fund: An Overview

The Waste Disposal Trust Fund ("the Trust") was established by the Jurisdictions when the Facility was constructed. The City of Alexandria and Arlington County each have a 50 percent ownership interest in the Trust; however, because Arlington County performs the administrative functions for the Trust, it is a component unit of Arlington County and the financial position and results of operations of the Trust are reflected in the comprehensive annual financial report of Arlington County.

Revenues to the Waste Disposal Trust Fund generally come from two sources: (1) amounts payable to the Jurisdictions by Covanta under its agreement with the Jurisdictions, and (2) a portion of the real property taxes levied on the Facility by the City of Alexandria.

Expenditures such as capital costs of repairs, replacements and changes to the Facility, and waste recycling programs which benefit the Jurisdictions are eligible for reimbursement through the Trust. In fiscal year 2002, the Trust has been used primarily to provide "tipping fee differential payments," which cover the difference between contractual tipping fees paid by haulers under special contracts and the

standard cost-based tipping fee. It can also be viewed as the difference between the operations and maintenance costs and debt service of the Facility in comparison to what the Facility can charge in the solid waste marketplace. The fund has also been used to pay advisor costs and costs for legal counsel retained to protect the interests of the Jurisdictions during Covanta's Chapter 11 bankruptcy reorganization.

Six Trustees administer the Fund: the Alexandria City Manager and two designees, and the Arlington County Manager and two designees. These Trustees are experienced in finance and accounting, law, government administration, and solid waste management. They rely on professional advisory and consulting services, as necessary, in such matters as investments, securities and tax law compliance, and engineering. The Trustees are committed to ensuring that the citizens of Alexandria and Arlington receive high quality service through a fiscally and environmentally sound solid waste management system.

The Waste Disposal Trust Fund provides for the prudent management of its cash resources, with investment objectives

Recycling workshop with
City of Alexandria school children
and "Robbie The Recycling Squirrel."



Planning for the Future

and procedures to ensure compliance with State law and the bond indentures and to maintain solvency of the Fund. Trust Fund balances at the end of the last five fiscal years are on page 10.

The Trust Fund balance was approximately \$11.2 million as of June 30, 2002.



Recycling is a key component in planning for the future.

Part of the Jurisdictions' waste supply commitment to Covanta is met through agreements that the Jurisdictions and Covanta have arranged with certain private haulers. These agreements only extend over the next few years and reflect reduced disposal fees.

The Waste Disposal Trust Fund has been paying the difference between disposal charges required by the agreement with Covanta and amounts collected under Covanta's contracts with these private haulers. Under current projections and without additional source(s) of revenue, the Trust Fund may not always be able to support these payments.

The Jurisdictions have sought out opportunities to reduce costs where possible. Recognizing an opportunity to lower interest costs on the outstanding debt for the Facility, given changes in the market for municipal bonds, the Jurisdictions arranged in 1998 for the refunding of approximately \$62 million of the bonds that were initially issued in 1984 to finance facility construction. This refunding will result in savings of more than \$8.9 million over the term of the bonds, and will help stabilize the costs of the Facility.

Trust Fund Revenues are Used to Support:

Facility service charges and tipping fee differential payments;

Funding of certain repairs and replacements at the Facility;

Trust Fund administrative and operating expenses; and

Independent public accounting fees.

Costs at the Facility have risen due to the additional debt and increased operating and maintenance expenses made necessary by the new air pollution control required by the federal Clean Air Act amendments and other Facility improvements.

Additional revenues will be needed to support these increased costs and to maintain the economic stability of the Facility. Substantially increasing the disposal fee at the Facility is an option, but this option is not likely to be feasible, at least not as the only source of additional revenue, as long as the Jurisdictions lack authority to enforce "flow control" ordinances. Any significant increase in disposal fees at the Facility would likely cause haulers to take waste to other disposal locations.



Arlington County and the City of Alexandria are working toward a green environment.

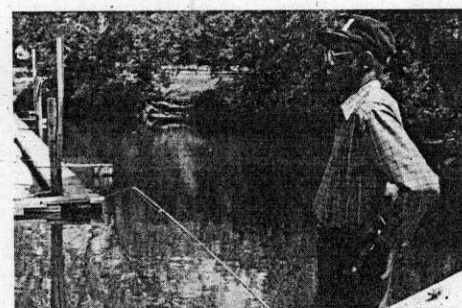
Planning for the Future (continued)

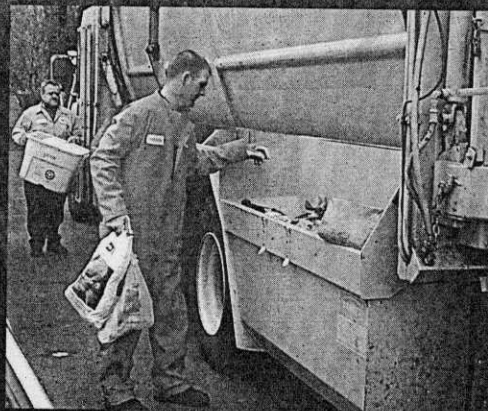
There are three primary, potential options to help meet the future increased revenue needs of the Facility. These include (1) an increase or reallocation in the real estate tax; (2) the imposition of an environmental investment charge as a special assessment on property owners; and (3) the creation of a "franchise" system for waste haulers. A franchise system would allow the Jurisdictions to select waste haulers for designated collection areas and require, through franchise agreements, that the franchised haulers use the Facility and pay the required disposal fees.

In addition to the on-going evaluation of these revenue options, the Jurisdictions, with Covanta, will be evaluating other opportunities to contract for waste supply, including the potential to extend existing contracts with private haulers. They will also be assessing how the unfolding developments in electric power deregulation can best be applied to open potential new markets and/or increase electricity revenues for the Facility. The Jurisdictions will maintain their efforts to gain legislation to restore flow control powers and will continue to search out opportunities for cooperation with

other communities in the region that could increase levels of recycling and/or reduce the costs of recycling.

The Trustees, along with the leadership of the Jurisdictions, are committed in their efforts to plan for the future, meet the challenges they face, access new opportunities and apply management solutions that are in the best interests of their residents and businesses. The City of Alexandria and Arlington County are dedicated to maintaining a financially stable and environmentally sound solid waste management system through their partnership for progress.





For more information regarding the solid waste management program in the Jurisdictions, please contact:

City of Alexandria

Department of Transportation &
Environmental Services

703-838-4966

<http://www.ci.alexandria.va.us/tes/sw/overview.html>

Arlington County

Department of Environmental Services

703-228-4488

<http://www.co.arlington.va.us/des/index.htm>

Covanta Energy

For more information regarding Covanta Energy, contact 703-370-7722 or see

http://www.covantaenergy.com/energy/facilities/waste_to_energy/alexandria.php4

Report prepared by Gershman, Brickner & Bratton, Inc. (GBB) with design assistance from MillerCox Design, Inc.



Printed on recycled paper with 100% post-consumer fibers using soy inks.